

REMARKS

This Amendment is in response to the Office Action of September 14, 2004 in which Figures 1A-1G were objected to for not carrying the legend --PRIOR ART-- and in which all the pending claims 1-26 were rejected under 35 U.S.C. § 102(a) as being anticipated by Applicant Admitted Prior Art (AAPA) under Background of the Invention Fig. 1A-1G.

The independent claims 1, 18 and 23 have been amended without prejudice to make it clearer that the inventive model creation phase, as opposed to that shown in the AAPA, comprises a plurality of sub-phases, each sub-phase comprising a treatment of model comprising growing a subtree into a tree of the model and a phase of pruning the subtree (see claim 1). The AAPA, in contrast, built and pruned a tree in two distinct phases, first building the tree and then pruning the whole tree at the root. The presently claimed invention has a model creation phase comprising a plurality of sub-phases, each sub-phase comprising treatment of model comprising growing a subtree into a tree of the model and a phase of pruning the subtree. In other words, the inventors' method mixes the phases: first they build a node (create its children), then the children are "treated" resulting in subtrees and then they prune the node immediately. They found that this technique saved space in the compression and made the compression more effective.

Regarding the limitation in claim 18 and in claim 23 of "cost evaluation means," it will be noted by the Examiner that even though a cost function is shown in the AAPA of Fig. 1G (pruning), the AAPA does not include cost evaluation in the "growing" of Fig. 1F. The presently claimed invention of claims 18 and 23 make it clear that the cost evaluation controls both the growing and pruning of a subtree. This is also claimed in some of the dependent claims of claim 1, e.g., claims 4, 6, 7, etc.

In the AAPA mentioned at page 3, beginning at line 35 (Fraser), precision trees were used as a model of compression. The compression is done on an Intermediate Representation (IR) of a compiler. Trees were not pruned, all were

IN THE DRAWING:

Figs. 1A-1G have been amended in the attached appendix to add the legend
“prior art.” Fig. 4 has also been amended to correct an error.

simply leaf transformation made on them that resulted in a Directed Acyclic Graph (DAG). In the presently claimed invention, trees are pruned.

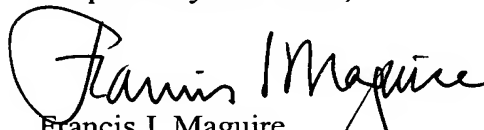
In the prior art mentioned beginning at line 6 at page 4 (Garofalakis et al), trees are used for item classification not code compression. Distinct tree building and pruning phases exist in this prior art reference. Although cost functions are shown during pruning, it is only counted for the size of the tree. In the present invention trees are used for compression and the model creation phase comprises a plurality of sub-phases, each sub-phase comprising growing a subtree and a phase of pruning this subtree. The tree building and pruning phases are combined together at a sub-phase level.

Thus, the claims have been amended to emphasize that the treatment of model is made up of sub-phases each comprising growing a subtree and pruning the subtree so that the presently claimed invention is now more easily distinguishable over the AAPA.

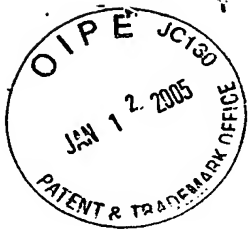
Regarding the drawings, the Examiner will find enclosed an appendix with an amendment to Figs. 1A-1G in which the prior art legend has been added. There is also an amendment to Fig. 4 where two errors have been corrected. Approval is requested.

The objections and rejections of the Office Action of September 14, 2004, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-27 to issue is solicited.

Respectfully submitted,


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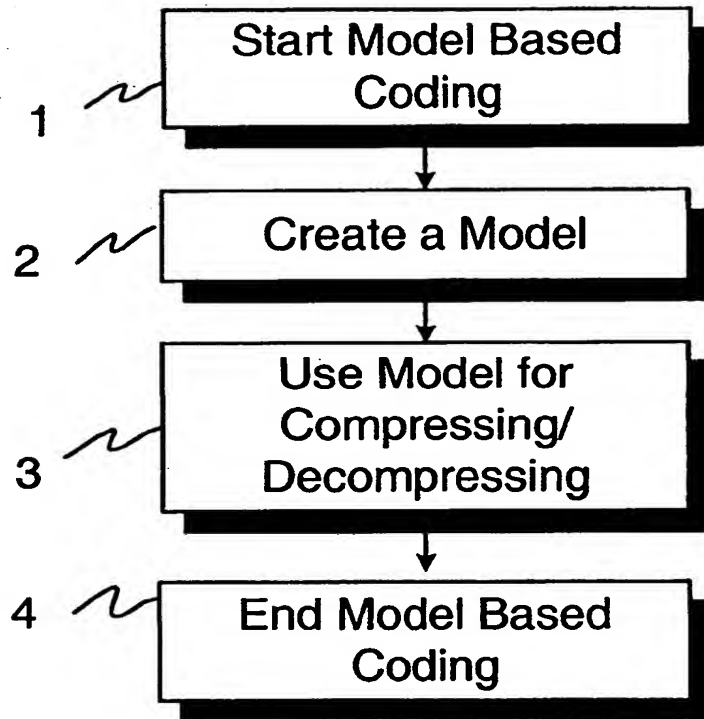


Fig.1A (PRIOR ART)

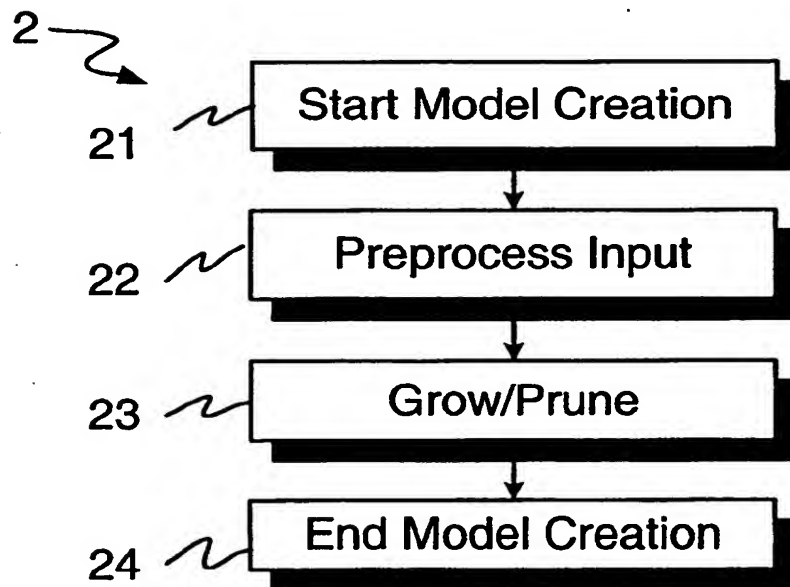


Fig.1B (PRIOR ART)

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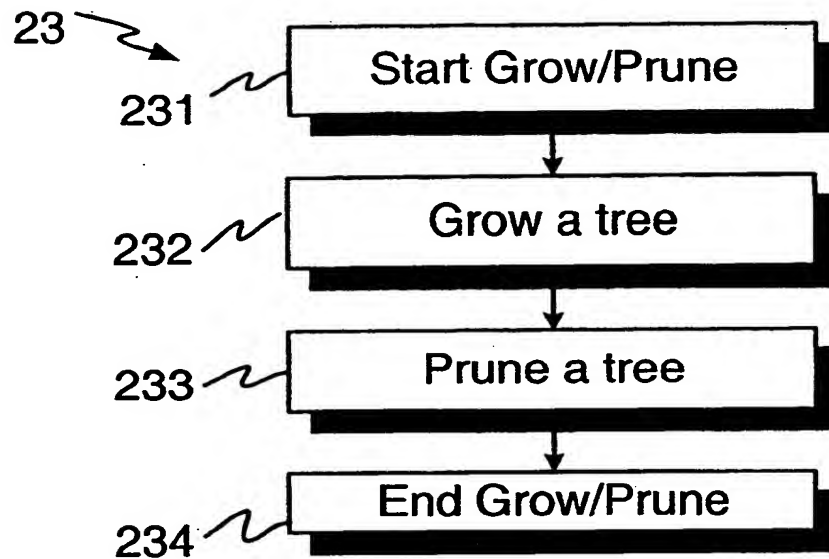


Fig.1C (PRIOR ART)

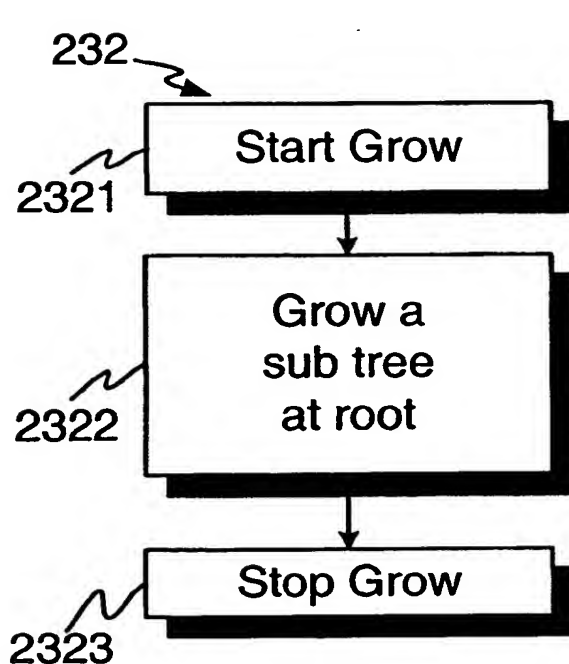


Fig.1D (PRIOR ART)

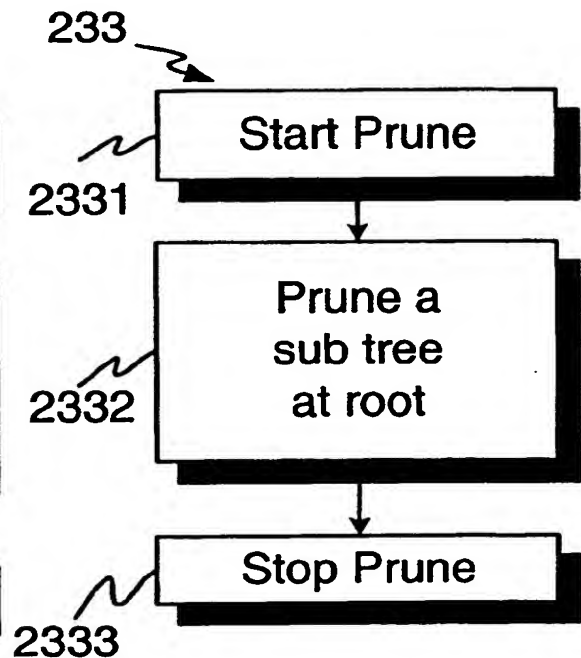


Fig.1E (PRIOR ART)

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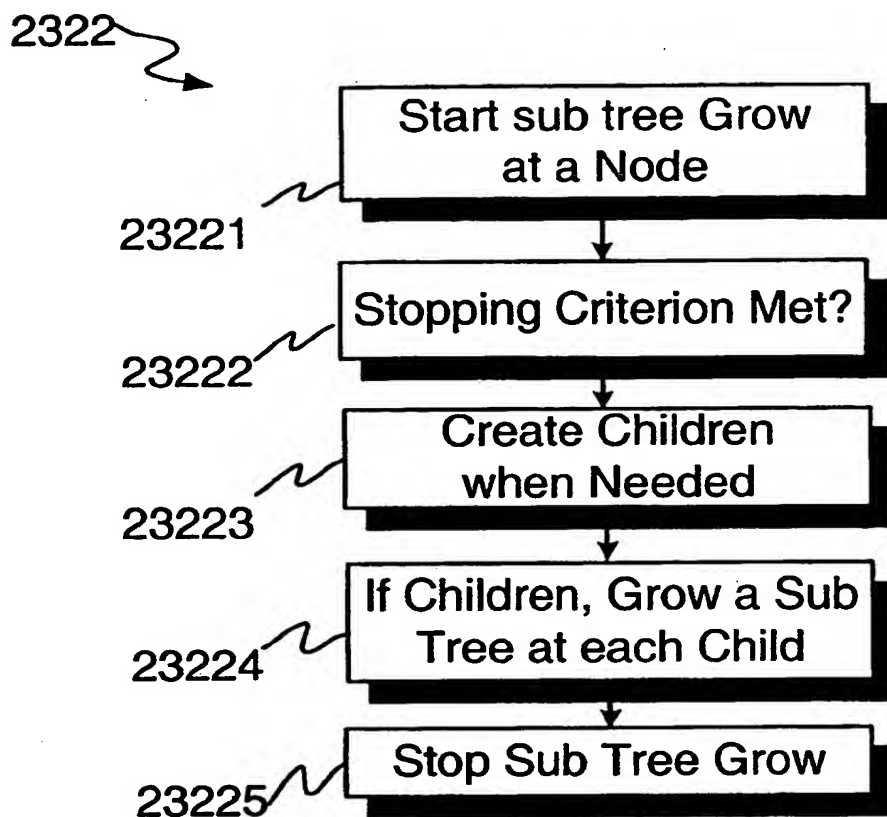


Fig.1F (PRIOR ART)

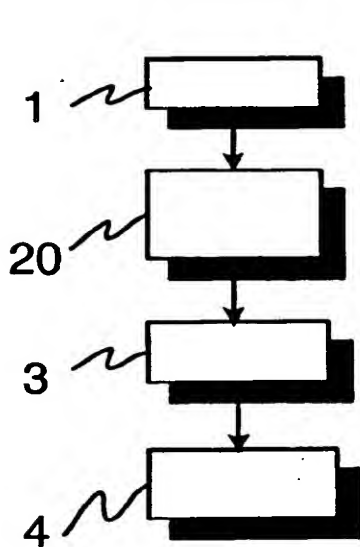


Fig. 2A

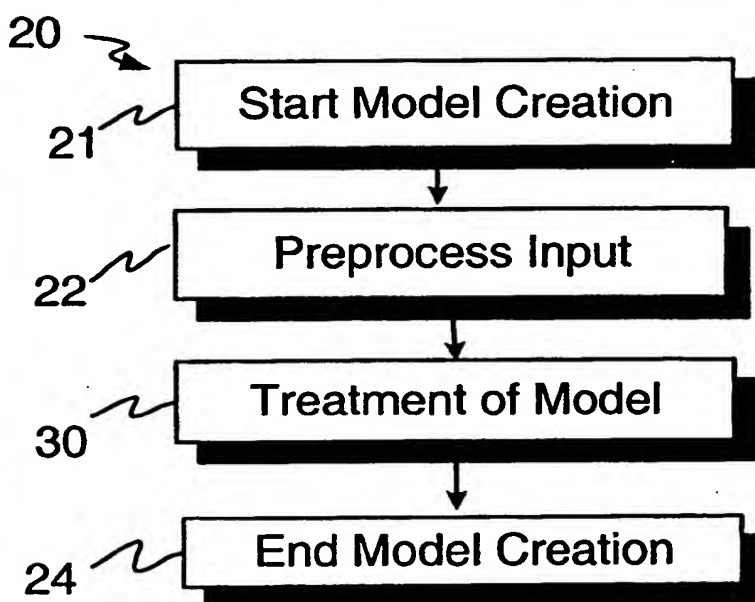


Fig. 2B

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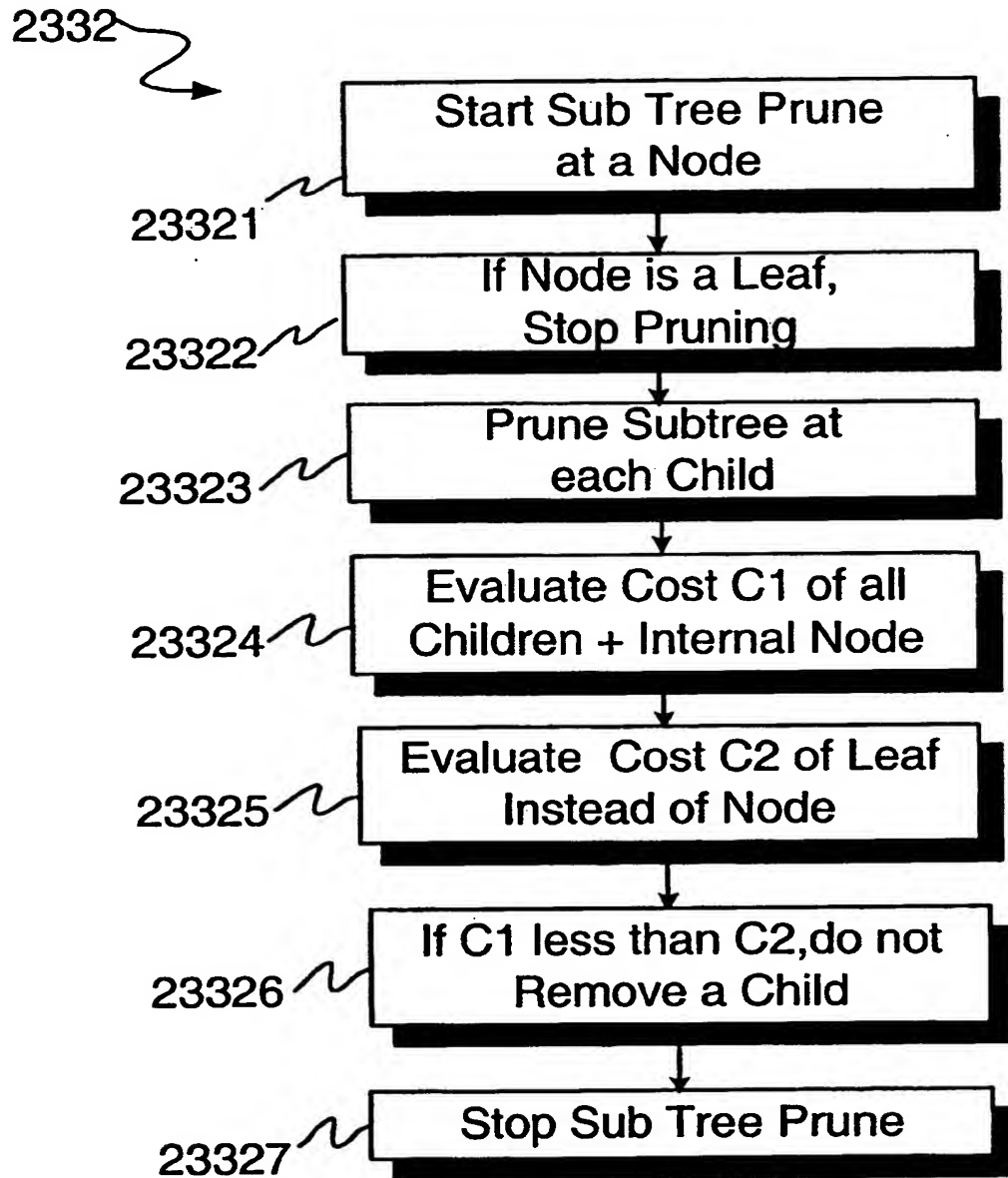


Fig.1G (PRIOR ART)

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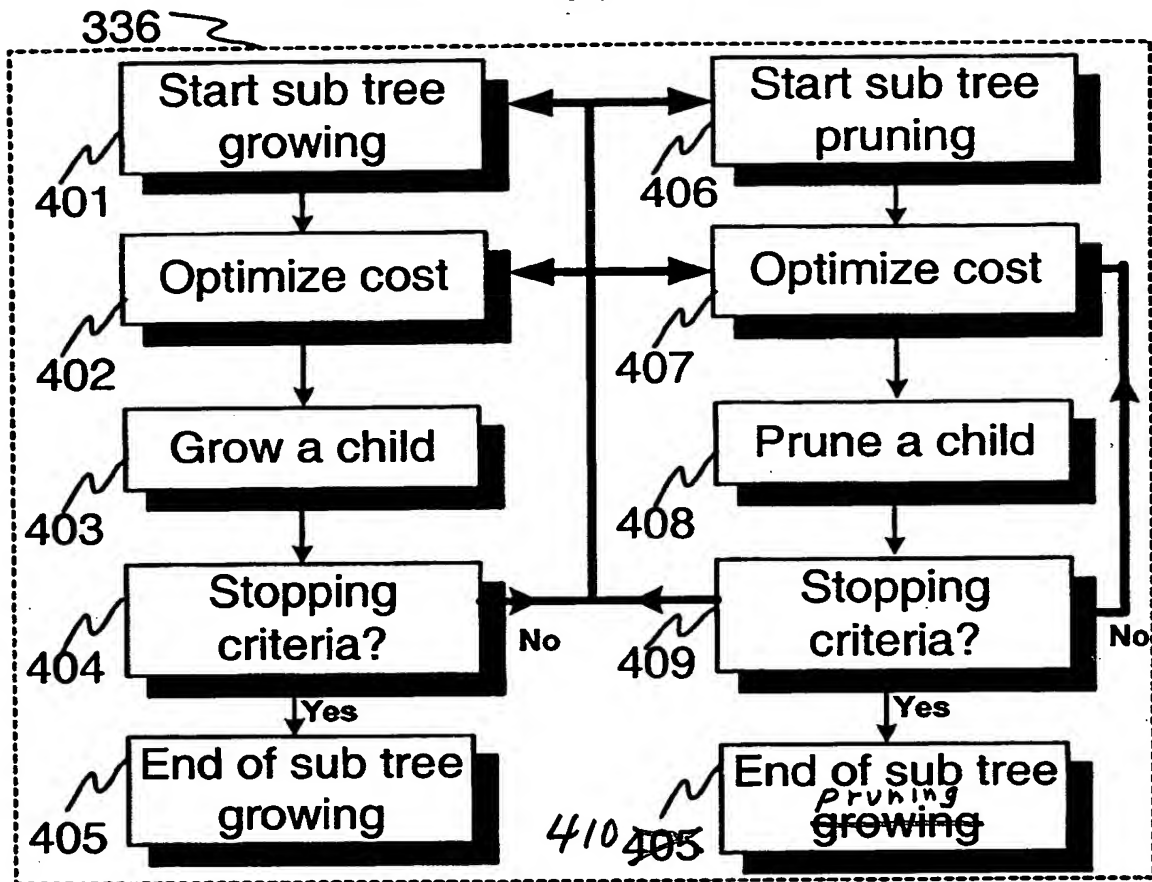


Fig.4

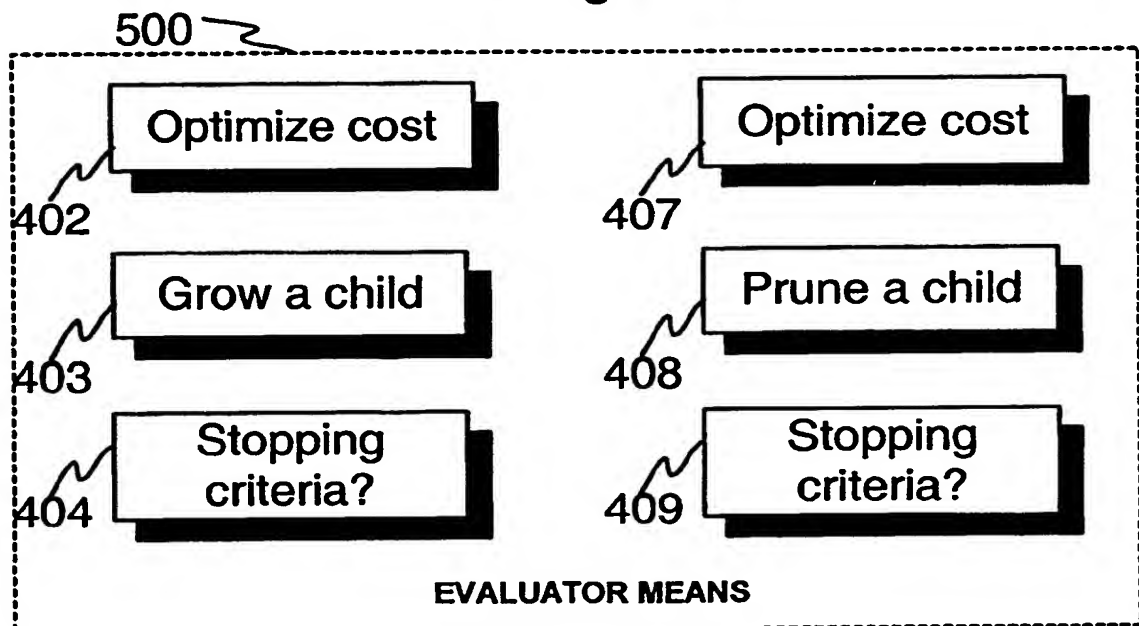


Fig. 5